

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P816-PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2004/013974	International filing date (day/month/year) 16.09.2004	Priority date (day/month/year) 18.09.2003
International Patent Classification (IPC) or national classification and IPC C22C23/02		
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 15.04.2005	Date of completion of this report 07.02.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Badcock, G Telephone No. +49 89 2399-8445 	

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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/013974

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-13 as originally filed

Claims, Numbers

1-5 as originally filed

Drawings, Sheets

1/7-7/7 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/013974

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-5
Inventive step (IS)	Yes: Claims	
	No: Claims	1-5
Industrial applicability (IA)	Yes: Claims	1-5
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

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1). Relevant documents

- D1: EP-A-1 127 950 (MITSUBISHI ALUMINIUM) 29 August 2001 (2001-08-29)
D2: EP-A-1 048 743 (GEN MOTORS CORP) 2 November 2000 (2000-11-02)
D3: EP-A-1 308 531 (VOLKSWAGENWERK AG ; DEAD SEA MAGNESIUM LTD (IL)) 7 May 2003 (2003-05-07)

2). Novelty, Art.33(2) PCT

- 2.1 D1 discloses a magnesium alloy suitable for die casting comprising, in its broadest definition, 2-6 Al, 0.3-2 Ca, 0.01-1 Sr, 0.1-1 Mn and the balance Mg. The ratio Ca/Al therefore also falls within the claimed range. Furthermore, 0.1-3% rare earth metals, to increase the creep properties, may be added to the alloy, (cf. [0032] and [0065]). The amount of "over 6% Al" as given in claim 1 is not distinguishable from the amount of 6% as disclosed in D1. Although there are no examples falling within the claimed ranges of the application, the disclosure is such that the skilled man would, upon reading D1, seriously contemplate working within the claimed range. The same also applies, in principle, to the further limitations given in dependent claims 2-4. None of the claims comprises novel subject matter with respect to D1.
- 2.2 D2 discloses creep resistant magnesium alloy die castings comprising about 3-6 Al, about 1.7-3.3 Ca, up to 0.35 Mn, about Sr 0.01-0.2 Sr and the balance being magnesium. Table 1A and Table 1B in D2 (with Ca/Al ratios of 0.35 and 0.42 respectively) disclose alloys L and AC63+0.2 which, also in terms of the aluminium contents of 5.9 and 6.0, are not clearly distinguishable from the alloy claimed. The subject matters of claims 1-3 and 5 are not novel with respect to D2.
- 2.3 The same applies mutatis mutandis to D3 (cf. [0015], [0021] to [[0027]], as for D2.

3. Inventive step, Art.33(3) PCT

Even if novelty could be acknowledged for the claims with respect to D1-D3, by virtue of a distinguishable Al content, which is strongly denied, it cannot be seen that such an imperceivable difference could causally result in different discernable effects. Hence there would in any case appear to be no inventive step associated with the claimed subject matter.